

071504T4WLD

WELDING LEVEL 4

ENG/OS/WEF/CR/04/4/A

Perform Gas Welding In All Positions With Various Metal Work Pieces

March/April 2025



**TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION
COUNCIL (TVET CDACC)**

WRITTEN ASSESSMENT

Time: 2 HOURS

INSTRUCTIONS TO CANDIDATE

1. This paper consists of **TWO** sections **A** and **B**.
2. Attempt **ALL** the questions in each section.
3. Marks for each question are indicated in the brackets.
4. You are provided with a separate answer booklet to answer the questions.
5. Do not write on the question paper.

This paper consists of FIVE (5) printed pages

**Candidate should check the question paper to ascertain that all pages are
printed as indicated and that no questions are missing**

SECTION A(10 MARKS)

Answer all questions in this section. Each question carries one mark

1. Choose the welding gas combination that provides intense heat during gas welding.
 - A. Nitrogen and carbon dioxide
 - B. Oxygen and acetylene
 - C. Acetylene and Nitrogen
 - D. Helium and carbon iv oxide
2. During gas welding process, correct ratio adjustments of welding gases is essential in order:
 - A. To save on time
 - B. To avoid leakages
 - C. To avoid going off
 - D. To obtain correct flame
3. Select the welding gas hose pipe that is coded maroon colour:
 - A. Acetylene hose pipe,
 - B. Oxygen hose pipe,
 - C. Cabron hose pipe,
 - D. Nitrogen hose pipe.
4. Identify the welding defect that is welding.
 - A. Undercut
 - B. Porosity
 - C. Slag inclusion
 - D. Cracks
5. In gas welding operations, various types of materials are used, including the following **EXCEPT**:
 - A. Aluminum
 - B. Stainless steel
 - C. Titanium
 - D. Carbon steel

6. The reason for cleaning a workplace welding process is to;
- A. Score high marks.
 - B. Have a conducive working area.
 - C. Save time
 - D. Keep a working area untidy
7. Identify a safety device used to prevent the reverse flow of gases in gas welding
- A. Flashback arrestor.
 - B. Regulator.
 - C. Check valve.
 - D. Hose clamp
8. Select the type of welding position where pipes are joined at an angle of 45° .
- A. 2G
 - B. 3G
 - C. 5G
 - D. 6G
9. The purpose of fitting clear glasses on either side of colored glass in helmet is to_____.
- A. Protect from rays
 - B. Protect from heat
 - C. Protect from spatters
 - D. Protect from radiation
10. _____ is a welding defect that occurs to a weld joint if it is provided with insufficient heat input.
- A. Lack of fusion
 - B. Lack of penetration
 - C. Lack of metal deposit
 - D. Uneven bead deposit

SECTION A(40 MARKS)
Answer all questions in this section

11. Define the following terms used in gas welding.
- i. Filler rod
 - ii. Backfiring
12. Safety is a critical factor in a welding work place. List FOUR safety gears worn when performing gas welding.

13. As a gas welder you must have a tool box for hand tools. Identify TWO hand tools you will keep (4 Marks)

in the tool box.

14. Inspection of weld is a key requirement to obtain quality welded joint. State TWO methods of inspecting weld quality. (2 Marks)
15. You have been assigned to conduct gas welding in your workshop. Explain the THREE types of welding flames that you could apply. (6 Marks)
16. Gas welding involves the use of different positions depending on the nature and position of the work to be welded. Name FOUR welding positions used in gas welding.ks)
17. Each part of gas welding systems plays an important role in ensuring the
- i. Gas cylinders
 - ii. Regulators
 - iii. Hoses
 - iv. Welding torch/blow pipe
 - v. Spark lighter
18. As a gas welder, you are required to consider various factors to achieve quality weld during gas welding. Outline THREE factors that affects the quality of weld produced during gas welding. (3 Marks)
19. Gas welding uses various techniques to weld different workpieces. Explain TWO gas welding techniques. (4 Marks)
20. You have just completed to gas weld a piece of work. Outline FIVE steps you will follow to shut down the gas welding equipment. (5 Marks)

21. Before gas welding quality weld. Outline THREE methods you can use to clean the workpieces prior to welding. (3 Marks)